

A PRELIMINARY KEY TO THE SPECIES OF PLEOCOMA  
(Coleoptera, Scarabaeidae)

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There is little doubt that the various forms of *Pleocoma* to which names have thus far been applied represent distinct populations, but the exact taxonomic status of the more closely related of these must await future interpretation on the basis of longer series of both sexes from many more geographical areas than are now represented in collections. In the preparation of the following key it has not been possible to examine the various named forms in any one place or at any one time. This fact, coupled with the inadequate material available of one or both sexes of many of the species, requires that the key be regarded as wholly tentative. With this reservation, it may be used, with the original descriptions, to assist in the separation of the described species and subspecies as they are now understood.

KEY TO THE SPECIES OF PLEOCOMA

Males

1. Antennal club composed of four or five long lamellae; third antennal segment at most three-fourths as long as scape (except *remota*) .....2
- Antennal club composed of six or seven long lamellae; third antennal segment nearly as long as scape.....14
2. Scutellum coarsely, closely punctate, densely clothed with long coarse hairs.....3
- Scutellum sparsely punctate, not or sparsely hairy.....7
3. Elytra reddish- or chestnut-brown.....4
- Elytra black .....6
4. Pronotum narrowly and deeply, or broadly and shallowly, impressed in front; antennae with third segment less than three-fourths as long as scape. Oregon.....5
- Pronotum broadly and deeply impressed in front; antennae with third segment more than three-fourths as long as scape; pubescence yellow. 22.5 mm. Utah.....*remota* Davis
5. Pronotum dark brown, elytra light reddish-brown; pronotum with anterior impression very broad, involving half the width of pronotum. 23 mm. Northern Oregon: Sherman County.....  
.....*oregonensis* Leach

- Pronotum and elytra concolorous; pronotum with anterior impression narrow, deep, coarsely and closely punctate, hairy. 24 mm. Southern Oregon: Douglas County.....*simi* Davis
- 6. Pubescence golden; anterior pronotal impression distinct. 22 mm. Southern Oregon: Jackson County.....*carinata* Linsley
- Pubescence dark brown or black; anterior pronotal impression indistinct. 25 mm. Northern California: Siskiyou County.....  
.....*shastensis* Van Dyke
- 7. Pubescence golden or reddish.....8
- Pubescence dark brown or black.....13
- 8. Lamella of eleventh segment with apex falling distinctly short of that of tenth segment. Northern California.....9
- Lamella of eleventh segment with apex about even with that of tenth segment. Southern California.....12
- 9. Pronotum coarsely punctate. Coast Range Mts.....10
- Pronotum finely, sparsely punctate. Sierra Nevada Mts.....11
- 10. Antennal club composed of four long lamellae, seventh segment transverse, subangulate but not lamellate, sixth segment cylindrical. Napa and Sonoma Counties....*sonomae* Linsley
- Antennal club composed of five long lamellae, seventh segment with a lamella one-half to two-thirds as long as that of eighth, sixth segment transverse, angulate. San Francisco Bay Area  
.....*behrensii* LeConte
- 11. Pronotum broadly rounded behind; antennal club shorter, barely long enough to surpass base of funicle. Central Sierra Nevada Mountains: foothills of Nevada, Placer and El Dorado Counties .....*fimbriata* LeConte
- Pronotum subangulate behind; antennal club long enough to reach nearly to base of scape. Southern Nevada Mts.: foothills of Madera, Fresno and Tulare Counties.....*tularensis* Leach
- 12. Pronotum piceous, elytra reddish-brown; pronotum shallowly, irregularly punctured. San Bernardino Mts.....*bicolor* Linsley
- Pronotum and elytra concolorous, black; pronotum deeply, coarsely, more regularly punctured. San Gabriel, San Jacinto and San Ysidro Mountains.....*australis* Fall
- 13. Pronotum, along mid-line, about two-thirds as long as greatest width, posterior angles rounded; elytral intervals rugose. 20-23 mm. Sonoma County.....*rickseckeri* Horn
- Pronotum, along mid-line, less than one-half as long as greatest width, posterior angles distinct; elytral intervals finely, sparsely punctate. 26-32 mm. Coastal southern California from Santa Monica to northern Lower California.....  
.....*puncticollis* Rivers
- 14. Pronotum with a distinct transverse elevation, suddenly declivous in front, broadly impressed behind, or the elytra with elevated costae, or both.....15
- Pronotum evenly convex or with a slight depression in front; elytra smooth or striato-punctate.....19

15. Pronotum with posterior angles broadly rounded, greatest width usually behind the middle. Pacific Coast.....16  
 — Pronotum with posterior angles distinct, greatest width usually in front of middle; pronotum piceous, elytra pale castaneous; scutellum not hairy. 24 mm. Utah.....*ulkei* Horn
16. Scutellum clothed with hair; fourth segment of antennae not lamellate.....17  
 — Scutellum not hairy; fourth segment of antennae with a short lamella; pronotum dark piceous, elytra chestnut-brown. 26-28 mm. Northern Sierra Nevada Mountains: Nevada and Yuba Counties .....*edwardsii* LeConte
17. Pronotum with transverse ridge feebly to moderately developed; elytral intervals distinctly, confluent punctate or subrugose; striae moderate. Northern Oregon.....18  
 — Pronotum with transverse ridge very distinct; elytral intervals finely, sparsely punctate; striae deeply impressed; pronotum piceous, elytra chestnut-brown. 26.5 mm. California: Northern Sierra Nevada Mountains.....*staff* Schaufuss
18. Pronotum dark brown, elytra black or fusco-piceous; pubescence ochraceous. Oregon: Washington, Marion and Benton Counties.....*dubitalis dubitalis* Davis  
 — Pronotum fusco-piceous, elytra fulvous; pubescence golden-yellow. Oregon: Clackamas County.....*dubitalis leachi* Linsley
19. Scutellum densely clothed with hair.....20  
 — Scutellum not or very sparsely hairy.....21
20. Color uniformly pale chestnut-brown; anterior impression of pronotum with a dense longitudinal band of long erect yellow hairs. 20 mm. Washington: Klickitat Co.....*crinita* Linsley  
 — Color dull brownish-black; anterior pronotal impression clothed with short, erect yellow hairs. 18 mm. Northern Oregon: Hood River .....*minor* Linsley
21. Pronotum with scattered semi-erect hairs.....22  
 — Pronotum not hairy or with hairs confined to anterior median impression.....24
22. Pronotum gray or black; elytra chestnut-brown, piceous or black; form robust, convex; third antennal segment curved..23  
 — Pronotum and elytra concolorous, pale reddish-brown; form less robust, dorsally flattened; third segment of antennae anteriorly angulate. 23-26 mm. Sierra Nevada Mts.: Mariposa to Tulare County above 4000 feet elevation.....*hoppingi* Fall
23. Antennae with lamella of fourth segment more than one-half as long as fifth; elytra chestnut-brown. North central Sierra Nevada Mts.: Yuba and Nevada Counties.....  
 .....*hirticollis hirticollis* Schaufuss  
 — Antennae with lamella of fourth segment much less than one-half as long as that of fifth; elytra piceous or black. Coast Range Mts.: Sonoma to Alameda County.....  
 .....*hirticollis vandykei* Linsley

24. Anterior impression of pronotum only a little more coarsely, closely punctate than disk, sparsely hairy.....25  
 — Anterior impression of pronotum coarsely, closely punctate, densely hairy .....27
25. Fifth segment of antennae with a lamella at least half as long as that of sixth; pronotum widest at basal angles.....26  
 — Fifth segment of antennae with at most a vestigial lamella; pronotum widest behind the middle; ocular canthi projecting at an angle, rounded, surface closely punctate. 23 mm. Santa Lucia Mts.....*lucia* Linsley
26. Fourth segment of antennae with a short lamella; ocular canthi almost right angular. 20-23.5 mm. Santa Cruz Co.: Santa Cruz Mts.....*conjungens* Horn  
 — Fourth segment of antennae angulate, not lamellate; ocular canthi projecting forward of a right angle. 24-30 mm. Ventura Co.: Sespe Canyon.....*venturae* Linsley
27. Color black to piceous brown.....28  
 — Color light brown, pronotum sometimes clouded with piceous; pronotum shining, posterior angles broadly, obtusely rounded; ocular canthi with anterior margin arcuate, apices rounded, posterior angle and margin broadly rounded. 23.5-28.5 mm. Los Angeles County: San Gabriel Mts.....*badia* Fall
28. Greatest width of pronotum at most twice greatest length; dorsal surface of head very hairy; anterior process of clypeus strongly reflexed, lateral angles acute but scarcely produced, emargination almost right-angular; elytra moderately shining; scutellum thinly clothed with long hairs. Los Angeles County.....*hirsuta* Davis  
 — Greatest width of pronotum nearly two and one-half times greatest length; dorsal surface of head sparsely hairy; anterior process of clypeus not reflexed; lateral angles very acute, produced, emargination obtuse, rounded; elytra highly polished; scutellum without long hairs. Coast Ranges of San Luis Obispo County.....*nitida* Linsley

#### Females

1. Antennal club composed of from four to seven lamellae. Oregon and California.....2  
 — Antennal club composed of three lamellae; form narrowly oval, almost twice as long as broad; color reddish-brown. 28 mm. Alaska: Seward.....*trifoliata* Linsley
2. Antennal club composed of four or five long lamellae; third antennal segment at most twice as long as broad.....3  
 — Antennal club composed of six or seven lamellae; third antennal segment distinctly more than twice as long as broad.....7
3. Antennal club composed of four lamellae, seventh segment transverse, angulate but not lamellate.....4  
 — Antennal club composed of five lamellae, seventh segment with a lamella one-half or two-thirds as long as that of eighth seg-

- ment; clypeus rounded, sometimes feebly notched; vertical horn deeply emarginate at apex. 26-34 mm. San Francisco Bay Area ..... *behrensi* LeConte
4. Lamella of eighth segment distinctly shorter than that of tenth segment; vertical horn emarginate at apex.....5
- Lamella of eighth segment almost as long as that of tenth segment; clypeus obtusely emarginate; vertical horn conical, apex truncate, not emarginate. 40 mm. San Gabriel, San Jacinto and San Ysidro Mts..... *australis* Fall
5. Third segment of antennae at least twice as long as second; clypeus emarginate at apex.....6
- Third segment of antennae but little longer than second; clypeus rounded or truncate at apex. 28-34 mm. Sonoma and Napa Counties ..... *rickseckeri* Horn
6. Antennal segments five and six bead-like, not acute. 41 mm. Napa and Sonoma Counties..... *sonomae* Linsley
- Antennal segments five and six transverse, acute. 27-34 mm. Central Sierra Nevada Mts.: Nevada County to El Dorado County ..... *fimbriata* LeConte
7. Elytral costae elevated.....8
- Elytral costae not elevated.....9
8. Fourth segment of antennae not angulate, six to eleven forming club; elytral costae moderately elevated; color castaneous. 25-32 mm. Northwestern Oregon..... *dubitalis* Davis
- Fourth segment of antennae angulate, five to eleven forming club; elytral costae strongly elevated; color dark reddish-brown. 31 mm. North central Sierra Nevada Mts.: Nevada and Yuba Counties..... *edwardsii* LeConte
9. Length 20-29 mm. Sonoma to Santa Cruz Counties.....10
- Length 31-45 mm. Monterey to Los Angeles Counties.....11
10. Antennal segments five to eleven forming club; color pale castaneous. 24-29 mm. Alameda to Sonoma County.....
- ..... *hirticollis vandykei* Linsley
- Antennal segments six to eleven forming club; color reddish-brown. 27 mm. Santa Cruz County..... *conjungens* Horn
11. Antennal club composed of six lamellae.....12
- Antennal club composed of seven lamellae.....13
12. Antennae with fifth segment angulate, not lamellate. 40-42 mm. Montrey County: Santa Lucia Mts..... *lucia* Linsley
- Antennae with fourth segment angulate, fifth segment with a short lamella. 38 mm Ventura County..... *venturae* Linsley
13. Clypeal emargination shallowly arcuate. 31.5 mm. San Luis Obispo County ..... *nitida* Linsley
- Clypeal emargination broadly arcuate. 32-43 mm. Los Angeles County: San Gabriel Mts..... *badia* Fall